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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,875	09/10/2003	Jorg Schwarzbich	344/1/067	3218

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EXAMINER

PANG, ROGER L

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,875

Applicant(s)

SCHWARZBICH, JORG

Examiner

Roger L Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/10/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

The following action is in response to application 10/6958,875 filed on September 10, 2004.

Drawings

The drawings are objected to because In Fig. 1, part 24 is pointing toward the wrong part. It should be pointing toward the slot (see Fig. 2), and not the sleeve inner gear teeth.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because the reference to Fig. 10 should be removed. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Christman. With regard to claim 1, Christman teaches a synchronizing system for transmissions, comprising: a gear 10, a shift sleeve 41 which is displaceably engaged with the gear by internal teeth 37 of the shift sleeve, and thrusters disposed between the gear and the shift sleeve (Fig. 3), each thruster having: a box-shaped casing 53 held in an axial slot 55 of the gear, a spring 56 resting on a bottom of the casing, and a pressure member 58 biased by the spring against the internal teeth of the shift sleeve and the casing of the thruster rests so as to be able to tilt on a bottom of the slot of the gear (Fig. 3). With regard to claim 2, Christman teaches the system, wherein the pressure member is a catch 56, which engages a recess 59 in the internal teeth of the shift sleeve. With regard to claim 5, Christman teaches the system, wherein the bottom of the thruster casing is rounded 54. With regard to claim 11, Christman teaches the system, wherein the bottom of the casing of the thruster and the bottom of the slot are conformed to one another over contoured surfaces (Fig. 3). With regard to claim 13, Christman teaches the system, wherein the casing of the thruster has a projection (bulb) on its bottom, which engages a recess in the bottom of the slot (Fig. 3).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christman. With regard to claim 3, Christman teaches the system, but lacks the teaching wherein the casing is molded from plastic. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Christman to employ a plastic casing, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christman as applied to claim 1 above, and further in view of Slacum. Christman teaches the system, but lacks the teaching wherein the pressure member is held in the casing by crimps formed on the walls of the casing. Slacum teaches a casing 50 with a pressure member 40 that is held in the casing by crimps formed on walls of the casing (Fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Christman to employ crimps in view of Slacum in order to facilitate easier assembly.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christman as applied to claim 1 above, and further in view of Perosky. With regard to claim 6, Christman teaches the system, wherein the thruster casing forms projections on the radially outer ends thereof (Fig. 3), however, Christman lacks the teaching wherein the ends reach into spaces

between the internal teeth of the shift sleeve. Perosky teaches a thruster casing 58 with radially outer ends thereof, which reach into spaces between the internal teeth 52 of the shift sleeve 38. It would have been obvious to one of ordinary skill at the time of the invention to modify Christman to employ extended radially outer ends of the thrust casing in view of Perosky in order to reduce exposure to internal debris. With regard to claim 7, Perosky teaches the system, wherein the projections are rounded (fillets) at free ends thereof, the rounding corresponding to an arc centered on a radially inner end of the thruster.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christman as applied to claim 1 above, and further in view of Griesser '090. With regard to claim 8, Christman teaches the system, but lacks the teaching of the thruster being in the shape of a square or rectangular post. Griesser teaches a thruster/casing 17 in the shape of a square or rectangular post (Col. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Christman to employ a square/rectangular thruster casing in view of Griesser in order to facilitate easier production. With regard to claim 9, Christman teaches the system, wherein the thruster has a 90 degree symmetry with respect to its longitudinal axis.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christman as applied to claim 1 above, and further in view of Tausend in further view of Griesser '090. Christman teaches the system, but lacks the teaching wherein the casing of the thruster has at a radially outer end a thickened head, which extends in a lengthwise direction of the slot. Tausend teaches a casing 9 of a thruster with a radially outer end with a thickened head which extends in a lengthwise direction of the slot. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Christman to employ a thickened outer head in view of

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Tausend in order to provide a more rigid support for the pressure member. Christman also lacks the teaching of the thruster being of rectangular plan. Griesser teaches a thruster 17 being of rectangular plan (Col. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Christman to employ a rectangular plan in view of Griesser in order to facilitate easier production.

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chretien, Griesser '990, Magg, and Osterloff have been cited to show similar synchro mechanisms.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete

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list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the

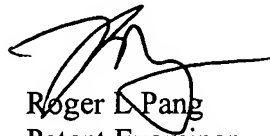
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processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang
Patent Examiner
Art Unit 3681

September 24, 2004